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## Third-Agers on The Internet: Impacts on Word-of-Mouth and Online Purchase Intentions

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### Abstract

Scientific development and technological advances have allowed for a considerable increase in human longevity. Elderly people, or “third-agers”, have come to make up an increasing percentage of the population in both developed countries and developing ones like Brazil. A major challenge for the elderly in this context is their adaptation to the demands of the modern world, especially in relation to Internet use. Nowadays these people have started to show a greater interest in new technologies. According to a study conducted in Brazil (CGI, 2009), usage frequency among older consumers who access the Internet is as follows: 47% daily, 29% at least once a week, 17% at least once a month and 7% less than once a month. These data confirm the promising market represented by elderly people. Given the change in population structure, combined with the considerable technological development resulting from the growth of Internet use in day-to-day life, it is important to understand Internet usage among elderly consumers. To analyze this, it is important that future studies concern themselves with the purpose of use, frequency of access and the future impacts that the Internet may have upon such customers. This theoretical article is organized with such questions in mind. Based on the literature, we have constructed a model to be tested in a subsequent study to help identify the relationships between the several variables surrounding this consumer behavior and the use of the Internet.

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**Keywords:** Elderly; consumer behavior; Internet; online purchase intentions.

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## 1. Introduction

Scientific development and technological advances have allowed for a considerable increase in human longevity. Third-agers have come to make up an increasing percentage of the population in both developed countries and developing ones (IBGE, 2008). In Brazil, the effects of population aging can already be felt and will have an even greater impact over the coming years (Slongo et al, 2009). The World Health Organization – WHO – defines the elderly population as those over 60 years old, but makes a distinction with respect to area of residence. This limit applies to developing countries like Brazil, rising to 65 where developed countries are concerned.

This population is now of great interest as it has also come to be notable for its growing purchasing power and the amount of free time at its disposal. It can be seen in this context that the elderly face a major challenge in adapting to the demands of the modern world, especially in relation to Internet use (Zajicek, 2001), but in recent times third-agers have started to show a greater interest in new technologies. According to a study conducted in Brazil (CGI.br, 2009), among elderly consumers that access the Internet, usage frequency is as follows: 47% daily, 29% at least once a week, 17% at least once a month and 7% less than once a month. These data confirm the promising market represented by elderly people. Given the change in population structure, combined with the considerable technological development resulting from the growth of Internet use in day-to-day life, it is important to understand Internet usage among elderly consumers. To analyze this, it is important that further studies concern themselves with the purpose of use, frequency of access and the future impacts that the Internet may have upon such consumers. This theoretical article is organized with such questions in mind. Based on the literature, we have constructed a model to be tested in a subsequent study to help identify the relationships between the several variables surrounding this consumer behavior and the use of the Internet.

## 2. Type of Internet use and its impacts

Previous research has found that Internet users can be behaviorally different from online shoppers and that heavy Internet use does not necessarily translate into frequent online shopping (Weiser, 2001). In order to analyze this question more closely, Weiser (2001) proposed a classification between two types of Internet use: Socio-Affective-Regulation (SAR) and Goods-and-Information Acquisition (GIA). According to the author, SAR refers to Internet use for interacting with other individuals, affiliations and relationships, whereas GIA refers to use of the Internet as a convenient way to simplify knowledge and information gathering as well as for the acquisition of goods and services (Weiser, 2001). In making this distinction, Weiser (2001) indicates that the reasons behind Internet use can be broadly classified as informational or social – consequently meaning that it is important to establish the difference between social and non-social Internet use in consumer research (Zhao, 2006). Based on these statements, the following research hypotheses are postulated:

*H1: There are significant differences between the levels of satisfaction among older adults who use the Internet for social purposes and those who use it for goods-and-information acquisition.*

*H2: There are significant differences in intentions for online shopping among older adults who use the internet for social purposes and those who use it for goods-and-information acquisition.*

## 3. Frequency of Internet use

In addition to including the variable “type of Internet use”, some studies have also assessed the variable “frequency of use” as an important indicator for a deeper analysis of online consumer behavior (Shklovski et al, 2004). Classification of users according to frequency of Internet use holds a special relevance for studies conducted in Brazil. Brazil has the world's highest average time spent online per user (27 hours and 48 minutes) (IBOPE, 2009): it is thus important to recognize that scales previously created in other countries cannot faithfully convey the reality of Brazilian Internet use. Additionally, such scales are derived from the average access rate of all people consulted, which may not represent the average of access rate of the elderly population.

For a study to evaluate this variable, it should contain an open field where individuals fill in their weekly rate of Internet use. This field would then be divided into three to classify consumers into high, medium, and low frequency

categories (according to the access profile of individuals in the given country and age group). Incorporating these constructs into our study, we propose the following research hypotheses:

*H3: There is a significant difference in online purchase intention between older adults according to their different frequency of Internet use.*

*H4: There is a significant difference in the generation of word-of-mouth between older adults according to their different frequency of Internet use.*

*H5: Elderly people who have a high frequency of Internet use for social purposes have greater satisfaction with its use than those elderly people who have a high frequency of Internet use for goods and information acquisition.*

#### **4. Satisfaction, dissatisfaction and future responses**

The importance of satisfaction for winning loyal clients and for generating positive WOM is widely accepted (Oliver, 1980; Swan and Oliver, 1989), in view of the fact that highly satisfied clients have the desire to tell other clients about their positive experience (Swan and Oliver, 1989). Conversely, negative WOM behaviors represent, for some customers, a complaint behavior which will become more prevalent when a dissatisfactory experience occurs. In the same way, the client's level of satisfaction has been connected to his/her purchase intentions (Oliver, 1980). We can thus outline these hypotheses:

*H6: Elderly people's degree of satisfaction with Internet use will affect the word-of-mouth generated from it: the greater the satisfaction, the greater the positive word-of-mouth will be, and the greater the dissatisfaction, the greater the negative word-of-mouth will be.*

*H7: Elderly people's degree of satisfaction with Internet use will affect online purchase intentions: the greater the satisfaction, the greater the online purchase intentions will be; and the smaller the satisfaction, the smaller the online purchase intentions will be.*

#### **5. The elderly customer and the internet**

The new possibilities arising from the growth of the Internet have coincided with a steady decrease in computer prices, and, consequently, an increase in the number of active home users (CGI.br, 2009). In 2006, 14.5% of Brazilian homes had Internet access, compared to 24% in 2009 (CGI.br, 2006; 2009). This is reflected by the fact that Brazil ranks among the countries with the highest rates of Internet access worldwide (IBOPE, 2009), and has the highest rate of access in Latin America (Internet World Stats, 2008).

Along with this change, it can also be noted that third-agers are beginning to show a greater interest in new technologies (CGI.br, 2009). However, there are still significant differences in the manner and frequency with which they use them. Some studies conducted among this group reveal the existence of a niche group of mature Internet consumers with an innovative profile who recognize the importance of the Internet in their day-to-day lives, mainly as a means of social integration (Farias, 2004). Such consumers represent a heterogeneous demographic which will be capable of online shopping in the near future (Farias, 2004). In its projection for Brazil, the Gfk Indicator states that the buying potential of elderly Brazilians is 17%, with the likely population of elderly consumers rising to 18 million by 2020 (Lemos, 2011). It can thus be expected that the behavior of elderly consumers will be distinct from that of other age groups where the Internet is concerned, influencing the way in which they use it and, consequently, their ensuing reactions. On this basis the following hypotheses are postulated:

*H8: There are significant differences in the relationship between types of Internet use and rates of satisfaction among elderly people and people from other age groups.*

*H9: There are significant differences in the relationship between rates of satisfaction and the generation of word-of-mouth among elderly people and people from other age groups.*

*H10: There are significant differences in the relationship between rates of satisfaction and online purchase intentions between elderly people and people from other age groups.*

## 6. Moderating factors in these relationships

In spite of the demographic trends discussed above, Silvers (1997) argues that there is a crucial error in the way in which advertising approaches and products are developed for this group, in as much as they do not clearly cover the diversity existing within this age group, and that as a result companies may be missing important business opportunities. In this context, chronological age (number of years lived) may be an increasingly irrelevant segmentation variable if the behavioral characteristics and lifestyle of different groups receive greater attention in the market (Szmigin and Carrigan, 2001). Thus, the starting point for segmenting the senior market must be an understanding that basic character traits do not change with age and that, just like any other age group, older consumers are not all identical in terms of personality (Leventhal, 1997).

Although chronological age targeting has proven to be popular and commonly used in consumer behavior research (Wei, 2005) because it is operationally simple and intuitively logical, it may not be effective as a means of targeting the market of third-agers and other age groups (Moschis and Mathur, 1993). Because of this, there have been a number of attempts to identify the different segments which make up the older age group, and one established variable for understanding these aspects is what is known as “cognitive age” (Wei, 2005; Moschis and Mathur, 1993; Barak and Schiffman, 1981). Cognitive age refers to perceived age (Barak and Schiffman, 1981): it is the age that the person assigns to himself or herself and is considered part of an individual’s self-concept (Kasterbaum et al, 1972). It differs from chronological age in that a person can feel cognitively younger or older than she/he really is (Wei, 2005).

It can thus be inferred not only that the needs of elderly people may differ from those of younger people, but also that needs may differ from one elderly person to another. Even so, several studies suggest that the concept of cognitive age is a useful adjunct to chronological age (Van Auken and Barry, 1995). Schiffman and Sherman (Schiffman and Sherman, 1991) found that the “young elderly” have more self-confidence, are willing to accept changes and personal challenges, probably actively seek new experiences, are more likely to try new products, are the most likely buyers of new products and services and, as such, may be an appropriate segment for many businesses to target (Szmigin and Carrigan, 2001).

In this context, marketing researchers have noted the importance of better understanding innovative behavior among consumers (Midgley, 1977) and, although some studies still indicate that older people are less willing to accept innovative products (Barak and Gould, 1985), we can observe that they are constantly changing, as each year more and more people are passing the age of 50. For this reason, and due to inconsistencies in findings on this topic, we consider that it would be interesting to include a variable to measure propensity for technology use as a moderating factor in relationships within this theoretical model. This “innovativeness” variable will be included in order to assess how it affects (or not) Internet usage by elderly consumers.

Based upon the above reflections, the theoretical model will contain two moderating factors in its structure: cognitive age and innovativeness. The following assumptions have accordingly been added to the work:

*H11: The greater the difference between the chronological age and the cognitive age of elderly individuals (the latter being smaller than the former), the greater the probability of an individual being an Internet user.*

*H12: The greater the individual’s degree of innovativeness, the greater the probability of that individual being an Internet user.*

The model in Fig.1 summarizes the theoretical analysis presented and the ideas proposed by this study.

## 7. Final considerations

We believe that this model allows for a better understanding of Internet usage by consumers and the future impacts of such usage on them (online purchase intention) and those close to them (positive/negative WOM). In order to make such an understanding possible, this model was designed for application to different age groups, making it possible to compare their differing behaviors in relation to digital media. Statements about the different ways elderly people behave on the Internet may thus be made with a more theoretical and empirical basis than was previously the case, given that no prior studies are known to have taken this type of approach and included all of the above variables in the development of a theoretical model to be presented for testing.

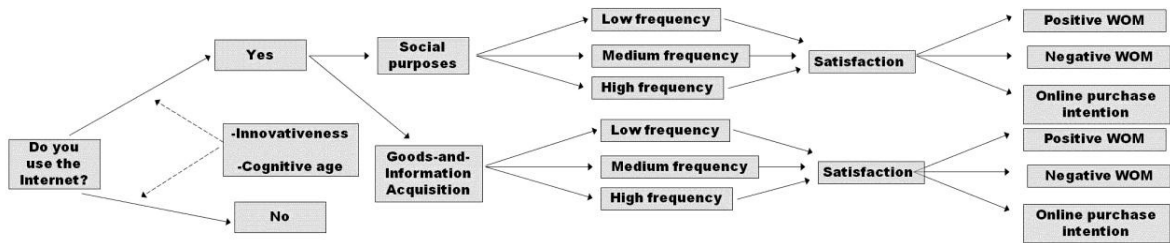


Fig. 1. Framework of study.

Several studies show that third-agers are a population whose behavior is distinct from that of other age groups (whether for physiological, demographic or cognitive reasons). On this basis we believe that relationships between the constructs included in the model above will be different for this age group and that, by including cognitive age and innovativeness as variables, it will be possible to demonstrate the need for new groupings grounded in characteristics related to these two moderating variables.

These variables, considered in conjunction with chronological age (an easier factor for businesses to identify), may be of great value in the establishment of new business segments and consequently have important implications for management decisions.

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